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09/673,381	10/16/2000	Hiroshi Omura	KP-8931	6863

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EXAMINER

AGGARWAL, YOGESH K

ART UNIT

PAPER NUMBER

2615

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/673,381

Applicant(s)

OMURA ET AL.

Examiner

Yogesh K Aggarwal

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,5-11,13-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-4,12 is/are allowed.
- 6) ☒ Claim(s) 1,5-11,13-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Specification***

1. The disclosure is objected to because of the following informalities:

- i. Page 10 line 1: Fig. 3 should be Fig. 2
- ii. Page 13 line 8: Reference numeral 46 is not labeled in the drawing.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1,5,6,11 are rejected under 35 U.S.C. 103(a) as being unpatentable over an admitted prior art by the applicant in view of Ishikawa et al (US Patent # 5,790,240).

[Claim 1]

Applicant's admitted prior art teaches the following:

An instant printer comprising an exposure device for projecting printing light based on image data (Page 1 lines 20-23), and a pair of spread rollers, wherein the instant printer records a latent image in an exposure area of a predetermined size on an instant film that includes a processing fluid, by exposing the instant film to the printing light, and develops the latent image into a positive image by spreading the processing fluid over the exposed instant film through the spread rollers (Page 2 lines 2-10), characterized in that:

Applicant prior art fails to teach the following limitation. However the following limitations are well known in the art as evidenced by Ishikawa. An exposure device (figure 3: 32) comprises a

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printing head for projecting the printing light linearly along a main scan direction (figure 3: 321), and a scanning mechanism for moving the printing head relative to the instant film in a sub scan direction perpendicular to the main scan direction (figure 1: 71,72,723), wherein an illumination range of the printing light by the printing head is longer in the main scan direction than a length in the main scan direction of the exposure area, whereas a sub scanning range by the scanning mechanism is longer than a length in the sub scan direction of the exposure area (col. 4 lines 56-63 figure 3)[ Figure 3 discloses the PLZT shutter array having an illumination range larger than the paper width]. Therefore taking the combined teachings of an admitted prior art and Ishikawa, it would have been obvious to have an exposure device with a printing head for projecting the printing light linearly along a main scan direction and a scanning mechanism for moving the printing head relative to the instant film in a sub scan direction perpendicular to the main scan direction wherein an illumination range of the printing light by the printing head is longer in the main scan direction than a length in the main scan direction of the exposure area, whereas a sub scanning range by the scanning mechanism is longer than a length in the sub scan direction of the exposure area. Doing so would help to expose the entire sheet of paper even if the sheet of paper deviates from a predetermined position.

[Claim 5]

An instant printer according to claim 1, wherein the printing head is moved from a scanning start position that is located before the exposure area in the sub scan direction, to a scanning end position that is beyond the exposure area in the sub scan direction, and is driven based on image data of one frame line sequentially from the scanning start position to the scanning end position, to accomplish one sub scanning (Ishikawa, col. 4 lines 40-52, figure 1).

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[Claim 6]

An instant printer according to claim 5, wherein the printing head is designed to record a number of pixels along a line extending in the main scan direction, the number being more than a necessary number for recording pixels through the entire length of the exposure area in the main scan direction, and wherein drive data corresponding to the pixels of one line recorded by the printing head is produced from the image data (Ishikawa, col. 8 lines 53-58 figure 6) [Slit S is long enough which is read as being larger than the pixels required to cover the image data].

[Claim 11]

Claim 11 is a method claim corresponding to the apparatus claim 1. Therefore, claim 11 is analyzed and rejected as previously discussed with respect to claim 1.

3. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over an admitted prior art by the applicant in view of Ishikawa et al (US Patent # 5,790,240) in further view of Shintani (US Patent # 5,875,034).

[Claim 7]

An admitted prior art by the applicant in view of Ishikawa teaches the limitations of claim 1 but fails to teach a device for connecting an external memory to the instant printer, and a device for reading out image data stored in the external memory, wherein the exposure device may be driven based on the image data read out from the external memory. However these limitations are well known in the art as evidenced by Shintani (col. 12 lines 66-67, col. 13 lines 1-5).

Therefore taking the combined teachings of an admitted prior art, Ishikawa and Shintani as a whole, it would have been obvious to have a device for connecting an external memory to the instant printer, and a device for reading out image data stored in the external memory, wherein

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the exposure device may be driven based on the image data read out from the external memory. Doing so would allow the image data written into the external memory card during an exposure operation to be printed by the instant printer.

[Claim 8]

An instant printer according to claim 7, further comprising an imaging device for photographing a subject, wherein an image of a subject photographed through the imaging device is recorded on the instant film by driving the exposure device based on image data obtained from the imaging device (Admitted prior art, page 1 lines 20-23).

[Claim 9]

An instant printer according to claim 8, further comprising a device for compressing image data of a subject photographed through the imaging device and writing it on the external memory, and a device for expanding compressed image data as it is read out from the external memory, wherein the exposure device may be driven based on the expanded image data (Shintani, col. 10 lines 52-59).

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over an admitted prior art by the applicant in view of Ishikawa et al (US Patent # 5,790,240) in further view of Shintani (US Patent # 5,875,034) in further view of Fujisawa (JP Patent # 410224594A).

[Claim 10]

An admitted prior art by the applicant in view of Ishikawa in further view of Shintani teaches the limitations of claim 9 but fails to teach a device for synthesizing image data read out from the external memory with image data photographed through the imaging device, wherein the exposure device may be driven based on the synthesized image data. However these limitations

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are well known in the art as evidenced by Fujisawa (Abstract: solution). Therefore taking the combined teachings of an admitted prior art, Ishikawa, Shintani and Fujisawa as a whole, it would have been obvious to have a device for synthesizing image data read out from the external memory with image data photographed through the imaging device. Doing so would allow adding attachment information to an original image as evidenced in Fujisawa (Abstract).

5. Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over an admitted prior art by the applicant in view of Swartz (US Patent # 6,308,892).

[Claim 13]

Applicant's admitted prior art teaches the following:

An instant printer comprising a loading chamber for loading a plurality of instant films that include a processing fluid (page 3 lines 3-5), a printing head for projecting printing light onto a photosensitive surface of the loaded instant film on the basis of image data, a scanning mechanism for moving the printing head along the photosensitive surface of the instant film, a pair of spread rollers for spreading the processing fluid over the exposed instant film, and a body for containing the above elements, the instant printer being characterized (page 2 lines 2-10) in that:

Applicant prior art fails to teach the following limitation. However the following limitations are well known in the art as evidenced by Swartz. A light-shielding housing that covers up at least a moving range of the printing head in a light-tight fashion is provided in the body (col. 20 lines 32-45 figure 14)[The print head 10' is used as a scanning mechanism which is covered by the light protective cover 184]. Therefore taking the combined teachings of an admitted prior art and Swartz as a whole, it would have been obvious to have a light-shielding housing that covers up at

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least a moving range of the printing head in a light-tight fashion which is provided in the body. Doing so would be advantageous because to have a separate window 186 mounted on the head with glue as evidenced in Swartz (col. 20 lines 46-49 figure 14).

[Claim 14]

An instant printer according to claim 13, wherein the light-shielding housing covers up the scanning mechanism besides the moving range of the printing head (Swartz, col. 20 lines 32-45 figure 14)[The print head 10' is used as a scanning mechanism which is covered by the light protective cover 184].

[Claim 15]

An instant printer according to claim 13, wherein the light-shielding housing is formed integrally with the loading chamber (Swartz, Figure 14 discloses that the light shielding cover 184 is formed integrally with the print head). Furthermore, shifting the location of parts is not patentable. *In re Japikes*, 86 USPQ 70 (CCPA 1950). It is a matter of obvious design choice.

[Claim 16]

Grounds for rejecting claim 13 apply entirely to claim 16.

6. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over an admitted prior art by the applicant in view of Shintani (US Patent # 5,875,034).

[Claim 17]

Applicant's admitted prior art teaches the following:

An electronic still camera comprising an imaging device for photographing a subject (Page 1 lines 16-18), an exposure device for exposing an instant film that includes a processing fluid on the basis of image data of the subject photographed through the imaging device (Page 1 lines 20-



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23), and a pair of spread rollers for ejecting the exposed instant film out of a camera body while spreading the processing fluid over the exposed instant film (Page 2 lines 2-10), the electronic still camera being characterized by comprising:

Applicant prior art fails to teach the following limitation. However the following limitations are well known in the art as evidenced by Shintani. A device for removably connecting an external memory to the instant printer (Shintani, col. 8 lines 1-2 figure 1:112), a device for compressing image data of a subject photographed through the imaging device and writing it on the connected external memory, and a device for expanding compressed image data that is read out from the external memory, wherein the exposure device may be driven based on the image data read out from the external memory (Shintani, col. 10 lines 52-59). Therefore taking the combined teachings of an admitted prior art and Shintani as a whole, it would have been obvious to have a device for connecting an external memory to the instant printer, and a device for reading out image data stored in the external memory, wherein the exposure device may be driven based on the image data read out from the external memory. Doing so would allow the image data written into the external memory card during an exposure operation to be printed by the instant printer

7. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over an admitted prior art by the applicant in view of Shintani (US Patent # 5,875,034) in further view of Fujisawa (JP Patent # 410224594 A).

[Claim 18]

An admitted prior art by the applicant in view of Shintani teaches the limitations of claim 17 but fails to teach an electronic still camera comprising a device for synthesizing image data read out

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from the external memory with image data photographed through the imaging device, and a device for displaying a composite picture based on the synthesized image data, wherein the composite picture may be printed by driving the exposure device based on the synthesized image data (Fujisawa, Abstract solution)[The image data which is synthesized and transmitted is printed on the received device]. . However these limitations are well known in the art as evidenced by Fujisawa (Abstract: solution). Therefore taking the combined teachings of an admitted prior art, Shintani and Fujisawa as a whole, it would have been obvious to have a device an electronic still camera comprising a device for synthesizing image data read out from the external memory with image data photographed through the imaging device, and a device for displaying a composite picture based on the synthesized image data, wherein the composite picture may be printed by driving the exposure device based on the synthesized image data. Doing so would allow adding attachment information to an original image as evidenced in Fujisawa (Abstract).

[Claim 19]

An electronic still camera according to claim 18, wherein the external memory previously stores decorative image data that may be synthesized with the subject image data (Fujisawa, Abstract solution)[RAM S8 in which the decoration and the image data are stored can be external or internal].

[Claim 20]

An electronic still camera according to claim 19, wherein the external memory is a memory card that is removably attachable to the camera body (Shintani, col. 8 lines 1-2 figure 1:112)

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***Allowable Subject Matter***

8. Claims 2-4,12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for indicating allowable subject matter:

9. As for claim 2, the prior art of record does not teach or fairly suggest the size of the illumination range relative to the exposure area is determined in accordance with clearances provided between the case and the instant film.

10. Claim 3 is dependent on claim 2 and claim 4 is further dependent on claim 3.

11. Claim 12 is a method claim based on the apparatus claim 2.

***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Nohata (US Patent # 6,048,045).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yogesh K Aggarwal whose telephone number is (703) 305-0346. The examiner can normally be reached on M-F 9:00AM-5: 30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's primary examiner, Vu Le can be reached (703) 308-6613. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

YKA

December 16, 2003

  
VU LE  
PRIMARY EXAMINER